

**Amendments to the Claims****The current status of the claims is as follows:**

Claims 1-479 (Canceled)

480. (Currently Amended) A kit comprising:

a probe molecule for use in determining the presence of a target nucleic acid sequence in a sample, the probe comprising complementary first and second base regions ~~capable of hybridizing to each other under nucleic acid assay conditions to~~ that form a hybrid containing at least one ribonucleotide modified to include a 2'-O-alkyl substitution to the ribofuranosyl moiety, wherein the probe forms a stable, double-stranded complex with the target nucleic acid sequence but not with a non-targeted nucleic acid under nucleic acid assay conditions, such that the target nucleic acid sequence can be detected, wherein the complex comprises a single-stranded form of the probe;<sub>1</sub> ~~and wherein the probe is provided in a kit further comprising a~~

a nucleic acid polymerase;<sub>2</sub>

nucleotide triphosphates;<sub>3</sub> and

an amplification oligonucleotide which, in the presence of a nucleic acid analyte and under amplification conditions, is extended to form part of a nucleic acid extension product containing the target nucleic acid sequence or directs the synthesis of a nucleic acid transcription product containing the target nucleic acid sequence.

481. (Currently Amended) The ~~probe~~ kit of claim 480, wherein the first base region contains at least one ribonucleotide modified to include a 2'-O-alkyl substitution to the ribofuranosyl moiety, and wherein the first base region complexes with the target nucleic acid sequence under the nucleic acid assay conditions.

482. (Currently Amended) The ~~probe~~ kit of claim 480, wherein that portion of the first base region ~~capable of forming a hybrid with which hybridizes to~~ the second base region ~~under nucleic acid assay conditions~~ includes a cluster of at least about 4 ribonucleotides modified to include a 2'-O-alkyl substitution to the ribofuranosyl moiety.

483. (Currently Amended) The ~~probe~~ kit of claim 482, wherein the first base region complexes with the target nucleic acid sequence under the nucleic acid assay conditions.

484. (Currently Amended) The ~~probe~~ kit of claim 480, wherein that portion of the first base region ~~capable of forming a hybrid with which hybridizes to~~ the second base region ~~under nucleic acid assay conditions~~ includes at least one nucleotide which is not a ribonucleotide modified to include a 2'-O-alkyl substitution to the ribofuranosyl moiety.

485. (Currently Amended) The ~~probe~~ kit of claim 484, wherein the first base region complexes with the target nucleic acid sequence under the nucleic acid assay conditions.

486. (Currently Amended) The ~~probe~~ kit of claim 480, wherein each nucleotide of that portion of the first base region ~~capable of forming a hybrid with which hybridizes to~~ the second base region ~~under nucleic acid assay conditions~~ is a ribonucleotide modified to include a 2'-O-alkyl substitution to the ribofuranosyl moiety.

487. (Currently Amended) The ~~probe~~ kit of claim 486, wherein the first base region complexes with the target nucleic acid sequence under the nucleic acid assay conditions.

488. (Currently Amended) The ~~probe~~ kit of claim 480, wherein each nucleotide of the probe is a ribonucleotide modified to include a 2'-O-alkyl substitution to the ribofuranosyl moiety.

489. (Currently Amended) The ~~probe kit~~ of claim 480, wherein the ~~hybrid formed between the~~ first and second base regions form a hybrid that is more stable than a hybrid formed between unmodified forms of the first and second base regions.

490. (Currently Amended) The ~~probe kit~~ of claim 480, wherein the probe includes a conjugate molecule.

491. (Currently Amended) The ~~probe kit~~ of claim 482, wherein the probe includes a conjugate molecule joined to the probe at a site located within the cluster of the first base region.

492. (Currently Amended) The ~~probe kit~~ of claim 480, wherein the first and second base regions are contained within an oligonucleotide that is between 10 and 100 bases in length.

493. (Currently Amended) The ~~probe kit~~ of claim 480, wherein the probe comprises a detectable label.

494. (Currently Amended) The ~~probe kit~~ of claim 493, wherein the detectable label comprises a fluorescent molecule.

495. (Currently Amended) The ~~probe kit~~ of claim 480, wherein the ~~target~~ nucleic acid analyte comprises RNA.

496. (Currently Amended) The ~~probe kit~~ of claim 495, wherein the RNA is ribosomal RNA.

497. (Currently Amended) The ~~probe kit~~ of claim 495, wherein a target sequence contained within the target nucleic acid includes a double-stranded region.

REPLY

Serial No. 09/808,558  
Atty. Docket No. GP068-05.CN3

498. (Currently Amended) The ~~probe~~ kit of any one of claims 480 to 497, wherein the 2'-O-alkyl substitution to the ribofuranosyl moiety is a 2'-O-methyl substitution.